

Application No. 09/932,677  
By: D. F. Weaver, et al.

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Examiner: D. R. Rao  
Art Unit: 1624

## APPENDIX

### *Version with Markings to Show Changes Made*

#### In the Claims:

68. (Twice Amended) A method of inhibiting epileptogenesis, comprising administering to a subject in need thereof an effective amount of a substituted  $\beta$ -amino anionic compound, comprising an amino group, an anionic group, and a two-carbon spacer unit, wherein said anionic group is a group that is negatively charged at physiological pH; and ~~each substituent is independently alkyl, alkenyl, alkynyl, cycloalkyl, aryl, alkoxy, aryloxy, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, aryloxy carbonyl, amino, hydroxy, cyano, halogen, carbonyl, alkoxy carbonyloxy, aryloxy carbonyloxy, or aminocarbonyl;~~ and

said the amino group is  $-NR^aR^b$ , wherein  $R^a$  and  $R^b$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl; or  $R^a$  and  $R^b$ , taken together with the nitrogen to which they are attached, form an unsubstituted or substituted heterocycle having from 3 to 7 atoms in the heterocyclic ring, wherein said amino group and said anionic group are separated by said two-carbon spacer unit;

wherein said two-carbon spacer unit may be substituted with a substituent selected from the group consisting of halogen, hydroxyl, alkylcarbonyloxy, arylcarbonyloxy, alkoxy carbonyloxy, aryloxy carbonyloxy, carboxylate, alkylcarbonyl, alkoxy carbonyl, aminocarbonyl, alkylthiocarbonyl, alkoxy, phosphate, phosphonate, phosphinate, cyano, amino, acylamino, amidino, imino, sulfhydryl, alkylthio, arylthio, thiocarboxylate, sulfates, sulfonate, sulfamoyl, sulfonamido, nitro, trifluoromethyl, azido, heterocyclyl, aromatic, and heteroaromatic moieties;

or a pharmaceutically acceptable salt or ester thereof, such that epileptogenesis is inhibited.

138. (Twice Amended) A method for treating a convulsive disorder, comprising administering to a subject in need thereof an effective amount of a substituted  $\beta$ -amino anionic compound, comprising an amino group, an anionic group, and a two-carbon spacer unit, wherein

said anionic group is a group that is negatively charged at physiological pH; and

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~~each substituent is independently alkyl, cycloalkyl, aryl, alkoxy, or aryloxy group;~~  
and

said the amino group is  $-NR^aR^b$ , wherein  $R^a$  and  $R^b$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl; or  $R^a$  and  $R^b$ , taken together with the nitrogen to which they are attached, form an unsubstituted or substituted heterocycle having from 3 to 7 atoms in the heterocyclic ring, wherein said amino group and said anionic group are separated by said two-carbon spacer unit;

wherein said two-carbon spacer unit may be substituted with a substituent selected from the group consisting of halogen, hydroxyl, alkylcarbonyloxy, arylcarbonyloxy, alkoxy carbonyloxy, aryloxy carbonyloxy, carboxylate, alkylcarbonyl, alkoxy carbonyl, aminocarbonyl, alkylthiocarbonyl, alkoxy, phosphate, phosphonate, phosphinato, cyano, amino, acylamino, amidino, imino, sulfhydryl, alkylthio, arylthio, thiocarboxylate, sulfates, sulfonate, sulfamoyl, sulfonamido, nitro, trifluoromethyl, azido, heterocyclyl, aromatic, and heteroaromatic moieties;

or a pharmaceutically acceptable salt or ester thereof, such that said convulsive disorder is treated.

142. (Amended) A method for treating a convulsive disorder, comprising administering to a subject in need thereof an effective amount of a substituted  $\beta$ -amino anionic compound, comprising an amino group, an anionic group, and a two-carbon spacer unit, wherein

said anionic group is a group that is negatively charged at physiological pH; and  
~~each substituent is independently alkyl, alkenyl, alkynyl, cycloalkyl, aryl, alkoxy, aryloxy, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, aryloxy carbonyl, amino, hydroxy, cyano, halogen, carboxyl, alkoxy carbonyloxy, aryloxy carbonyloxy, or aminocarbonyl;~~  
and

said the amino group is  $-NR^aR^b$ , wherein  $R^a$  and  $R^b$  are each independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl; or  $R^a$  and  $R^b$ , taken together with the nitrogen to which they are attached, form an unsubstituted or substituted heterocycle having from 3 to 7 atoms in the heterocyclic ring, wherein said amino group and said anionic group are separated by said two-carbon spacer unit;

wherein said two-carbon spacer unit may be substituted with a substituent selected from the group consisting of halogen, hydroxyl, alkylcarbonyloxy, arylcarbonyloxy, alkoxy carbonyloxy, aryloxy carbonyloxy, carboxylate, alkylcarbonyl, alkoxy carbonyl,

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aminocarbonyl, alkylthiocarbonyl, alkoxyl, phosphate, phosphonato, phosphinato, cyano, amino, acylamino, amidino, imino, sulfhydryl, alkylthio, arylthio, thiocarboxylate, sulfates, sulfonate, sulfamoyl, sulfonamido, nitro, trifluoromethyl, azido, heterocyclyl, aromatic, and heteroaromatic moieties;

or a pharmaceutically acceptable salt or ester thereof, such that epileptogenesis is inhibited.